

Warm Up: Name the property that each equation illustrates.

Commutative

Associative

Distributive

a) $-3 \cdot -\frac{1}{3} = 1$

d) $3(8 \cdot 0) = (3 \cdot 8)0$

Inverse

Associative

b) $(-3 + 4) + 5 = -3 + (4 + 5)$

e) $p + q = q + p$

Associative

Commutative

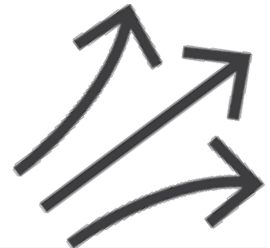
c) $2 + 0 = 2$

f) $np = pn$

Identity

Commutative

Review of the Distributive Property



Fill in the prompts below with a partner or small group.

<p>I can recognize the distributive property is needed because I will see...</p> <p>a number out front of parentheses</p>	<p>The distributive property means I will have to...</p> <p>multiply each term inside by the # out front</p>
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★ When you see distributive property, do it first!!! ★

★ REMEMBER: distribute the sign of the number outside of parentheses, too!!! ★



$$4(x+3)$$

$$4x + 4(3)$$

$$4x + 12$$



$$-2(3) - (-2)(y)$$

$$-2(3 - y)$$

$$-6 + 2y$$

$$-x(x+4)$$

$$-x(x) - x(4)$$

$$-1x^2 - 4x$$

1) Yessenia simplified an expression as shown below:



Given:	$x + 6 + 3(x + 4)$
Step 1:	$x + 9(x + 4)$
Step 2:	$x + 9x + 36$
Step 3:	$10x + 36$

In which step did Yessenia make a mistake?

She didn't distribute first.

What should she have done instead?

$$\begin{array}{l}
 x + 6 + 3(x + 4) \\
 \text{---} \quad \text{---} \quad \text{---} \quad \text{---} \\
 \textcircled{1}x + 6 + \textcircled{3}x + 12 \\
 \text{---} \quad \text{---} \quad \text{---} \\
 \textcircled{4x + 18}
 \end{array}$$

$3(x) + 3(4)$

2) Sierra simplified an expression as shown below:

Given:	$x + 8 + 5(x - 4)$
Step 1:	$x + 8 + 5x - 20$
Step 2:	$5x + 8 - 20$
Step 3:	$5x - 12$



In which step did Sierra make a mistake?

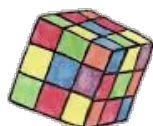
She didn't add
like-terms
correctly.

What should she have done instead?

$$\begin{array}{l}
 \overset{5(x)}{\downarrow} \overset{5(-4)}{\downarrow} \\
 x + 8 + 5(x - 4) \\
 \hline
 \textcircled{x} + 8 + \textcircled{+5x} - 20 \\
 \hline
 \textcircled{6x - 12}
 \end{array}$$

3) Jose simplified an expression as shown below:

"EVEN THE HARDEST
PUZZLES HAVE
A SOLUTION"



Given:	$x + 3 + 7(x - 5)$
Step 1:	$x + 3 + 7x - 5$
Step 2:	$8x + 3 - 5$
Step 3:	$8x - 2$

In which step did Jose make a mistake?

What should he have done instead?

Warm Up

- Take 5 minutes to complete the sprint you collected from the back
- Turn it in
- Open your packet to the page for writing corrections on the sprint



Review of Sprint

Name: _____ | Score
Distributive Property Sprint | ____/10

Directions: INDEPENDENTLY simplify each expression completely below. Write your answer on the line provided.

1. $5(x + 3)$ _____

2. $-4(x + 2)$ _____

3. $x(3 - y)$ _____

4. $-z(4 + z)$ _____

5. $-7(-a - 3)$ _____